

February Open-Ended Questions  
Math for Standards

Name \_\_\_\_\_

Date \_\_\_\_\_

For each open-ended question, make sure that you solve and fully explain how you solved as well as how you know your method is correct.

1. In the formula  $E = mc^2$ , where  $m$  is mass,  $E$  is energy, and  $c$  is the speed of light (186,000 mi/sec), find the amount of mass,  $m$ , rounded to tenths necessary to obtain  $E = 5.88 \times 10^{11}$ .

2. Francine is earning \$7.00 per hour. She gets a 20% raise in pay. By what fraction should you multiply to find how much more per hour she will now make? What will Francine's new hourly rate be?